

IN THE CLAIMS:

1. (currently amended) ~~Device for measuring at least one item of physiological information in an individual, characterised in that it comprises a flexible membrane, designed to come into contact with the skin of the said individual and participating in the definition of a deformable space for a flexible substance, the said substance transmitting to at least one sensor at least one physical force undergone by the said membrane, the said deformable space being defined by a support on which the said sensors and the said membrane are mounted, so that the said substance is in direct contact with the said sensor or sensors.~~ A device for measuring at least one item of physiological information through the skin of an individual, comprising:

- a) A flexible membrane designed to come into contact with the skin of the individual;
- b) A deformable space formed by the flexible membrane;
- c) A support card upon which at least one sensor is mounted, the card mounted to the membrane to close the space;
- d) A flexible substance filling the space for transmitting to the at least one sensor at least one physical force to be undergone by the membrane.

2. (currently amended) ~~The [[D]]device according to of claim 1, characterised in further comprising~~ that the said membrane comprises means of fixing to the said support.

3. (currently amended) ~~The [[D]]device according to of claim 2, characterised in further comprising~~ that the said membrane defines at least one housing designed to receive the said support.

4. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 3, characterised in further comprising~~ that the said membrane comprises means ~~[[of]]~~ for fixing to a shell element of the said device.

5. (currently amended) ~~The [[D]]device according to of claim 4, characterised in further comprising~~ that the said membrane defines at least one housing designed to receive the said shell element.

6. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 3 to 6~~ 4, characterised in that wherein the said fixing means acts by clipping.

7. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 6~~, characterised in that wherein the said membrane has at least two areas with different rigidities.

8. (currently amended) ~~The [[D]]device according to of claim 7, characterised in that~~ wherein the said membrane has a main contact area, designed to come in contact with the skin of the said individual, and a peripheral area, extending over the contour of the said main contact area.

9. (currently amended) ~~The [[D]]device according to either one of claim[[s]] 7 and 8~~, characterised in that wherein each of the said areas ~~fulfils~~ fulfills a distinct function, belonging to the group comprising the measurement of forces, the transmission of forces and the rigidity of the shape of the said membrane.

10. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 7 to 9~~ 8, characterised in that wherein the thickness of the said peripheral area is less than the thickness of the said main contact area.

11. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 7 to 10~~, characterised in that wherein the said membrane is obtained by overmoulding at least two materials with different rigidities.

12. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 11~~, characterised in that wherein the said membrane is produced from at least one hypoallergenic material.

13. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 12~~, characterised in that wherein the said membrane and/or the said substance has an elastic character.

14. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 13,~~
~~characterised in that~~ wherein the said substance is a substantially non-compressible ~~or only~~
~~slightly compressible~~ material.

15. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 14,~~
~~characterised in that~~ wherein the said substance is a dielectric material.

16. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 15,~~
~~characterised in that~~ wherein the said substance is a silicone gel.

17. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 16,~~
~~characterised in that it comprises~~ wherein the sensor is at least one transducer for measuring
at least one dynamic force, representing an arterial pressure wave ~~and/or~~ a relative
movement.

18. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 17,~~
~~characterised in that it comprises~~ wherein the sensor is at least one transducer for measuring
at least one static force.

19. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 18,~~
~~characterised in that it comprises a~~ wherein the sensor is for the temperature of the said
substance, representing the skin temperature of the user.

20. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 19,~~
~~characterised in that~~ wherein the said sensor or sensors is comprised from a group of a at least
piezocapacitive sensor, ~~and/or at least one a~~ piezoresistive sensor ~~and/or at least a~~ contact
switching at a predetermined pressure.

21. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 20,~~
~~characterised in that~~ wherein the said support card is a printed circuit carrying electronic
components for effecting the amplification, treatment and processing of electrical signals
~~and/or~~ a decision relating to a state of the ~~said wearer,~~ individual and means for supplying
electrical energy ~~and/or~~ a communication interface.

22. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 21,~~
~~characterised in that it comprises~~ further comprising a shell formed from ~~two~~ a complementary
~~shell elements,~~ a bottom shell element carrying the said membrane and a top shell element.

23. (currently amended) ~~The [[D]]device according to~~ of claim 22, ~~characterised in~~
~~that wherein~~ the said shell elements are connected together by screwing, ~~and/or~~ clipping
~~and/or~~ adhesive bonding, also providing a seal for the ~~said fluid~~ substance.

24. (currently amended) ~~The [[D]]device according to either one of claim[[s]] 22 and~~
~~23, characterised in that it comprises~~ further comprising a holding strap, fixed to the top shell
element.

25. (currently amended) ~~The [[D]]device according to~~ of claim 24, ~~characterised in~~
~~that wherein~~ the said holding strap ~~and/or~~ the said top shell element has a capacity for
extensibility and elastic recovery so as to facilitate the application of a prestressing to the ~~said~~
device.

26. (currently amended) ~~The [[D]]device according to~~ of claim 25, ~~characterised in~~
~~that wherein~~ the said holding strap and at least a portion of the said shell form a single piece
produced from a flexible material.

27. (currently amended) ~~The [[D]]device according to any one of claim[[s]] 1 to 26,~~
~~characterised in that it comprises~~ further comprising processing means on the support card for
analysing at least one physical force transmitted by the ~~said fluid~~ substance in order to
determine at least one of the items of information belonging to the group comprising:

- at least one item of blood pressure information;
- at least one item of information representing ~~the~~ a pulse;
- at least one item of information representing an arterial tension;
- at least one item of information representing respiration;

- at least one item of information representing ~~the~~ an activity of the said individual;
- at least one item of information representing a fall;
- at least one item of information representing ~~the~~ a wave form;
- at least one item of information representing the skin temperature of the wearing area;
- at least one item of information as to whether the device is worn~~[[/]]~~ or not worn; and
- at least one item of information representing ~~the~~ a change/~~or variance~~ of one of the said above items of information.

28. (cancelled)

29. (currently amended) A Method of manufacturing a device for measuring at least one item of physiological information ~~according to any one of claims 1 to 27, characterised in that it~~ compris~~[[es]]~~ing the following steps:

- mounting the necessary electronic components on a support;
- connecting together ~~the said~~ a membrane and the said support, defining a deformable space; and
- injecting ~~the said~~ a substance in the said space.

30. (currently amended) The ~~[[M]]~~method according to of claim ~~[[29]]~~ 28, ~~characterised in that~~ wherein the said substance is injected into the said space in a liquid form.

31. (currently amended) The ~~[[M]]~~method according to either one of claim~~[[s]]~~ 29 and 30 28, ~~characterised in that~~ wherein the said support is inserted in at least one housing defined in the said membrane.

32. (currently amended) The ~~[[M]]method according to any one of claim~~ ~~[[s]] 29 to 31~~
~~28, characterised in that~~ wherein the said membrane is fixed to a bottom shell element, by
means of at least one housing provided for this purpose on the ~~said~~ membrane.

33. (currently amended) The ~~[[M]]method according to any one of claim~~ ~~[[s]] 29 to~~
~~32 28, characterised in that it~~ further comprises comprising a step of assembling a shell
formed from a bottom shell element and a top shell element.

34. (currently amended) The ~~[[M]]method according to~~ of claim 33 ~~32~~,
~~characterised in that~~ wherein the said shell elements are connected together by screwing,
~~and/or clipping and/or adhesive bonding.~~